

Project Specific Final Water Quality Management Plan

For: **Coachella Business Park**

**123 Street A
Coachella, CA 92236**

**DEVELOPMENT NO. APN 0000-000-00
DESIGN REVIEW NO. PA01-2345**

Prepared for:

Joe Developer
ABC Development Company
800 Unknown Street
Riverside, CA 92501
Telephone: (951) 555-1111

Prepared by:

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Hands on Exercise
Example Only - 1st review
Plan Check Comments

Return With Next Submittal

WQMP Preparation/Revision Date:
1st Submittal: May 1

*- Requires wet stamp and
signature by R.C.E. for
final approval*

OWNER'S CERTIFICATION

This project-specific Water Quality Management Plan (WQMP) has been prepared for:

ABC Development Company

by ABC Engineering

for the project known as **ABC Business Park** at 123 Street A in Coachella, CA

This WQMP is intended to comply with the requirements of City of Coachella for **APN 0000-000-00**, which includes the requirement for the preparation and implementation of a project-specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity.

The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under the City of Coachella Water Quality Ordinance (Coachella Municipal Code #). *insert city's municipal code here*

If the undersigned transfers its interest in the subject property/project, the undersigned shall notify the successor in interest of its responsibility to implement this WQMP.

"I, the undersigned, certify under penalty of law that I am the owner of the property that is the subject of this WQMP, and that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature

Joe Developer

Owner's Printed Name

President

Owner's Title/Position

May 1, 2008

Date

800 Unknown Street
Riverside, CA 92501
(951) 555-1111

*- Will require owners
original signature and
notary certificate for
final approval.*

ATTEST

Signature

Printed Name

Title/Position

Date

*- VERIFY OWNERSHIP
USING PRELIMINARY
TITLE REPORT*

*- RECORD WQMP ON
MAINTENANCE AGREEMENTS*

May 1, 2008

Contents

<u>SECTION</u>	<u>PAGE</u>
I PROJECT DESCRIPTION	A-1
II SITE CHARACTERIZATION	A-4
III POLLUTANTS OF CONCERN	A-6
IV HYDROLOGIC CONDITIONS OF CONCERN	A-7
V BEST MANAGEMENT PRACTICES	A-9
V.1 Site Design BMPs	A-9
V.2 Source Control BMPs	A-20
V.3 Equivalent Treatment Control Alternatives	A-23
V.3 Regionally-Based Treatment Control BMPs	A-23
VI OPERATION AND MAINTENANCE RESPONSIBILITY FOR TREATMENT CONTROL BMPs	A-24
VII FUNDING	A-26

TABLES

1 POLLUTANT OF CONCERN SUMMARY
2 SITE DESIGN BMPs
3 SITE DESIGN BMPs MEASURABLE GOAL SUMMARY
4 SOURCE CONTROL BMPs
5 TREATMENT CONTROL BMP SELECTION MATRIX

APPENDICES

A. CONDITIONS OF APPROVAL
B. VICINITY MAP, WQMP SITE PLAN, AND RECEIVING WATERS MAP
C. SUPPORTING DETAIL RELATED TO HYDRAULIC CONDITIONS OF CONCERN (IF APPLICABLE)
D. EDUCATIONAL MATERIALS
E. SOILS REPORT (IF APPLICABLE)
F. TREATMENT CONTROL BMP SIZING CALCULATIONS AND DESIGN DETAILS
G. AGREEMENTS – CC&RS, COVENANT AND AGREEMENTS AND/OR OTHER MECHANISMS FOR ENSURING ONGOING OPERATION, MAINTENANCE, FUNDING AND TRANSFER OF REQUIREMENTS FOR THIS PROJECT-SPECIFIC WQMP
H. PHASE I ENVIRONMENTAL SITE ASSESSMENT – SUMMARY OF SITE REMEDIATION CONDUCTED AND USE RESTRICTIONS

I. Project Description

Instructions:

The project description shall be completely and accurately described in narrative form. In the field provided on page A-3, describe and with supporting figures (maps or exhibits), where facilities will be located, what activities will be conducted and where, what kinds of materials will be used and/or stored, how and where materials will be delivered, and the types of wastes that will be generated. The following information shall be described and/or addressed in the "Project Description" section of the project-specific WQMP:

- *Project owner and WQMP preparer;*
 - *Project location;*
 - *Project size;*
 - *Standard Industrial Classification (SIC), if applicable;*
 - *Location of facilities;*
 - *Activities and location of activities;*
 - *Materials Storage and Delivery Areas;*
 - *Wastes generated by project activities.*
-

Project Owner: **ABC Development Company**

800 Unknown Street
Riverside, CA 92501
Telephone: (951) 555-1111

WQMP Preparer: ABC Engineering

123 ABC Road
Coachella, CA 92236
Telephone: (760) 555-2525

Project Site Address: 123 Street A
Coachella, CA 92236

Planning Area/
Community Name/
Development Name: Coachella Valley
APN Number(s): 0000-000-00
Thomas Bros. Map: Thomas Bros Map Page 000
Project Watershed: Whitewater River
Sub-watershed: Coachella Valley Storm Channel
Project Site Size: 2.30 acres

Standard Industrial Classification (SIC) Code: 8111, Attorney's Office
8711, Engineering Services
LIST ALL POSSIBLE SIC CODES

Formation of Home Owners' Association (HOA)
or Property Owners Association (POA):

Y ☐ N ☒

*-list all possible
S.I.C. codes
that will/may be
utilized in this
project.*

Additional Permits/Approvals required for the Project:

*IF No P.O.A., how will common
space be
maintain.
See page
(29)
Comment*

AGENCY	Permit required
State Department of Fish and Game, 1601 Streambed Alteration Agreement	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Certification	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
US Army Corps of Engineers, CWA Section 404 permit	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
US Fish and Wildlife, Endangered Species Act Section 7 biological opinion	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
Other (please list in the space below as required)	

*Note:
IF yes is marked
for any of the above
permits, have preparer
include a copy of
that permit inside the
WQMP for verification
that items in permit
are being addressed*

Project Description:

See page (29) comment

The Project proposes the development of a professional business park. The business park will feature four commercial office condominiums, paved access aisle and parking stalls, a vegetated swale, roof runoff controls, and landscaped buffers. The site does not propose outdoor work areas or storage. The owner intends to lease the buildings/offices to professional organizations (i.e., law offices, financial, real estate, engineering, etc.) that typically conduct all business activities indoors. However, leasing has yet to begin and exact usage is unknown at this time, but will be in compliance with the City of Coachella Zoning and Municipal Codes.

Anticipated wastes are those associated with indoor office activities. The following are anticipated wastes generated by proposed use: Paper, paper by-products, general office trash, cans and bottles.

Appendix A of this project-specific WQMP includes a complete copy of the final Conditions of Approval. Appendix B of this project-specific WQMP includes:

- a. A Vicinity Map identifying the project site and surrounding planning areas in sufficient detail to allow the project site to be plotted on Permittee base mapping; and
- b. A Site Plan for the project. The Site Plan included as part of Appendix B depicts the following project features:
 - Location and identification of all structural BMPs, including Treatment Control BMPs.
 - Landscaped areas.
 - Paved areas and intended uses (i.e., parking, outdoor work area, outdoor material storage area, sidewalks, patios, tennis courts, etc.).
 - Number and type of structures and intended uses (i.e., buildings, tenant spaces, dwelling units, community facilities such as pools, recreation facilities, tot lots, etc.).
 - Infrastructure (i.e., streets, storm drains, etc.) that will revert to public agency ownership and operation.
 - Location of existing and proposed public and private storm drainage facilities (i.e., storm drains, channels, basins, etc.), including catch basins and other inlets/outlet structures. Existing and proposed drainage facilities should be clearly differentiated.
 - Location(s) of Receiving Waters to which the project directly or indirectly discharges.
 - Location of points where onsite (or tributary offsite) flows exit the property/project site.
 - Proposed drainage area boundaries, including tributary offsite areas, for each location where flows exits the property/project site. Each tributary area should be clearly denoted.
 - Pre- and post-project topography.

Appendix G of this project-specific WQMP shall include copies of CC&Rs, Covenant and Agreements, and/or other mechanisms used to ensure the ongoing operation, maintenance, funding, transfer and implementation of the project-specific WQMP requirements.

II. Site Characterization

Land Use Designation or Zoning:

- Current Zoning: (MU-3 Multiple Use, Area 3)
- Proposed Zoning: (MU-3 Multiple Use, Area 3)

Current Property Use: Undeveloped

Proposed Property Use: Professional Office Buildings

Availability of Soils Report: Y ☒ N ☐ *Note: A soils report is required if infiltration BMPs are utilized. Attach report in Appendix E.*
See Appendix E

Phase 1 Site Assessment: Y ☐ N ☒ *Note: If prepared, attached remediation summary and use restrictions in Appendix H.*
Not performed

Note:
Site Assessments that have been performed shall be included and reviewed to determine possible contaminants/legacy pollutants that must be addressed in this WQMP. Legacy pollutants are chemicals that remain in the environment long after they were introduced, and are still winding up in our waterways.

Receiving Waters for Urban Runoff from Site

Instructions:

On the following page, list in order of upstream to downstream, the receiving waters that the project is tributary to. Continue to fill each row with the receiving water's 303(d) listed impairments, designated beneficial uses, and proximity, if any, to a RARE beneficial use.

Receiving Waters for Urban Runoff from Site

Receiving Waters	303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Coachella Valley Stormwater Channel	Pathogens, Toxaphene	FRSH, REC I, REC II, WARM WILD, RARE	Approximately 2 miles

USE EVEN FOR
ONSITE RETENTION
PROJECT

Note:
Sites with on-site retention
requirements must still list
Coachella Valley Stormwater
channel as their receiving
waters since overflow
drainage will reach the
channel.

III. Pollutants of Concern

Proximate Receiving Waters:

719.40 Coachella hydrologic subunit --
Impaired for: Pathogens, Toxaphene

Coachella Valley Storm Channel
H.U.B. No. 719.40
Impaired for: Pathogens and Toxaphene

Hydrologic Unit Basin
Number (H.U.B.) is
found in the "Water Quality
Control Plan for the Colorado
River Basin Region" adopted
June 2006.

Instructions:

Potential pollutants associated with Urban Runoff from the proposed project must be identified. Exhibit B of the WQMP provides brief descriptions of typical pollutants associated with Urban Runoff and a table that associates typical potential pollutants with types of development (land use). It should be noted that at the Permittees discretion, the Permittees may also accept updated studies from the California Association of Stormwater Quality Agencies (CASQA), USEPA, SWRCB and/or other commonly accepted agencies/associations acceptable to the Permittee for determination of Pollutants of Concern associated with given land use. Additionally, in identifying Pollutants of Concern, the presence of legacy pesticides, nutrients, or hazardous substances in the site's soils as a result of past uses and their potential for exposure to Urban Runoff must be addressed in project-specific WQMPs. The Permittee may also require specific pollutants commonly associated with urban runoff to be addressed based on known problems in the watershed. The list of potential Urban Runoff pollutants identified for the project must be compared with the pollutants identified as causing an impairment of Receiving Waters, if any. To identify pollutants impairing proximate Receiving Waters, each project proponent preparing a project-specific WQMP shall, at a minimum, do the following:

- For each of the proposed project discharge points, identify the proximate Receiving Water for each discharge point, using hydrologic unit basin numbers as identified in the most recent version of the Water Quality Control Plan for the Colorado River Basin.
- For each proximate Receiving Water identified, review the most recent Clean Water Act Section 303(d) list of impaired water bodies (available at http://www.waterboards.ca.gov/coloradoriver/water_issues/programs/tmdl/) and list all pollutants for which the proximate Receiving Waters are impaired in Table 1, Pollutants of Concern Summary.
- Using Exhibit B (General Categories of Pollutants of Concern) of the Whitewater River Region WQMP, identify all post-construction potential pollutants of concern from the project site and summarize them in Table 1, Pollutants of Concern Summary.
- Compare the list of pollutants for which the proximate Receiving Waters are impaired with the pollutants of concern to be generated by the project. For pollutants of concern that are causing an impairment in Receiving Waters, the project WQMP shall incorporate one or more Treatment Control BMPs of medium or high effectiveness in reducing those pollutants.

Table 1. Pollutant of Concern Summary

Pollutant Category	Potential for Project	Causing Receiving Water Impairment
Bacteria/Virus	Potential	X
Heavy Metals	Potential	
Nutrients	Potential	(X)
Pesticides	Potential	
Organic Compounds Toxaphene	Potential	X
Sediments	Potential	
Trash & Debris	Potential	
Oxygen Demanding Substances	Potential	
Oil & Grease	Potential	
Other (specify pollutant):		
Other (specify pollutant):		

Nutrients are not impairing receiving waters

This Projects pollutants of concern are Nutrients because ^{they are} it is the only potential pollutants that are impairing the proximate receiving waters. The project does not have activities associated with wastes or solvents.

MEDIUM TO HIGH TREATMENT EFFICIENCY FOR

See footnote (6) on page B-2, Exhibit B. Bacterial Indicators are routinely detected in pavement runoff.

Q1V BMP

IV. Hydrologic Conditions of Concern

Local Jurisdiction Requires On-Site Retention of Urban Runoff:

Yes ☐ The project will be required to retain urban runoff onsite in conformance with local ordinance (See Table 6, Permittees Requiring Onsite Retention of Stormwater, of the Whitewater River Region WQMP). This section does not need to be completed.

No ☒ This section must be completed.

WAIVES SECTION 4 FOR WQMP

Instructions:

Impacts to the hydrologic regime resulting from the Project may include increased runoff volume and velocity; reduced infiltration; increased flow frequency, duration, and peaks; faster time to reach peak flow; and water quality degradation. Under certain circumstances, changes could also result in the reduction in the amount of available sediment for transport; storm flows could fill this sediment-carrying capacity by eroding the downstream channel. These changes have the potential to permanently impact downstream channels and habitat integrity. A change to the hydrologic regime of a Project's site would be considered a hydrologic condition of concern if the change would have a significant impact on downstream erosion compared to the pre-development condition or have significant impacts on stream habitat, alone or as part of a cumulative impact from development in the watershed.

This project-specific WQMP must address the issue of Hydrologic Conditions of Concern unless one of the following conditions are met:

- **Condition A:** *Runoff from the Project is discharged directly to a publicly-owned, operated and maintained MS4; the discharge is in full compliance with Permittee requirements for connections and discharges to the MS4 (including both quality and quantity requirements); the discharge would not significantly impact stream habitat in proximate Receiving Waters; and the discharge is authorized by the Permittee.*
 - **Condition B:** *The project disturbs less than 1 acre and is not part of a larger common plan of development that exceeds 1 acre of disturbance. The disturbed area calculation must include all disturbances associated with larger plans of development.*
 - **Condition C:** *The project's runoff flow rate, volume, velocity and duration for the post-development condition do not exceed the pre-development condition for the 2-year, 24-hour and 10-year 24-hour rainfall events. This condition can be achieved by minimizing impervious area on a site and incorporating other site-design concepts that mimic pre-development conditions. This condition must be substantiated by hydrologic modeling methods acceptable to the Permittee.*
-

This Project meets the following condition:

- ☒ **Condition A:** Runoff from the Project is discharged directly to a publicly-owned, operated and maintained MS4; the discharge is in full compliance with Permittee requirements for connections and discharges to the MS4 (including both quality and quantity requirements); the discharge would not significantly impact stream habitat in proximate Receiving Waters; and the discharge is authorized by the Permittee.
- ☐ **Condition B:** The project disturbs less than 1 acre and is not part of a larger common plan of development that exceeds 1 acre of disturbance. The disturbed area calculation must include all disturbances associated with larger plans of development.
- ☐ **Condition C:** The project's runoff flow rate, volume, velocity and duration for the post-development condition do not exceed the pre-development condition for the 2-year, 24-hour and 10-year 24-hour rainfall events. This condition can be achieved by minimizing impervious area on a site and incorporating other site-design concepts that mimic pre-development conditions. This condition must be substantiated by hydrologic modeling methods acceptable to the Permittee.
- ☐ **None**
Refer to Section 3.4 of the Whitewater River Region WQMP for additional requirements.

Supporting engineering studies, calculations, and reports are included in Appendix C.

	2 year – 24 hour		10 year – 24 hour	
	Precondition	Post-condition	Precondition	Post-condition
Discharge (cfs)				
Velocity (fps)				
Volume (cubic feet)				
Duration (minutes)				

This Project meets the following condition: Condition A. Supported in Appendix C

Appendix C must substantiate all 4 items underlined above.

V. Best Management Practices

V.1 SITE DESIGN AND TREATMENT CONTROL BMPs

Local Jurisdiction Requires On-Site Retention of Urban Runoff:

Yes ☐ The project will be required to retain urban runoff onsite in conformance with local ordinance (See Table 6, Permittees Requiring Onsite Retention of Stormwater, of the Whitewater River Region WQMP). This section does not need to be completed.

No ☒ This section must be completed.

Instructions:

To the extent feasible, project proponents shall utilize the following site design concepts and incorporate Site Design BMPs into project plans to manage runoff produced by V_{BMP} (the flow-based BMP design criteria) or Q_{BMP} (the volume-based BMP design criteria):

1. Site design measures that minimize the volume of runoff produced
2. Site design measures that promote onsite infiltration of runoff
3. Site design measures that provide retention and storage for re-use
4. Site design measures that utilize vegetation and/or engineered soils for evapotranspiration and bioretention

The project proponent must complete Table 2 and indicate "Yes," "No," or "N/A" for each Site Design BMP. Following Table 2:

1. The project proponent must provide a narrative descriptions explaining how each included BMP will be implemented. In those areas where Site Design BMPs require ongoing maintenance, the inspection and maintenance frequency, the inspection criteria, and the entity or party responsible for implementation, maintenance, and/or inspection shall be described. The location of each Site Design BMP must also be shown on the WQMP Site Plan included in Appendix B.
2. If a particular Site Design BMP concept is indicated as "No" or "N/A", a brief explanation must be provided as to why the concept cannot be implemented.

If the project proponent implements a Permittee-approved alternative or equally effective Site Design BMP, an additional description indicating the nature of the Site Design BMP and how it addresses the Site Design concept shall be provided.

The project proponent must complete Table 3, Site Design BMPs Measurable Goal Summary, which summarizes the extent to which Site Design BMPs have been incorporated into project plans relative to the size of the entire project site.

Note: The Permittees general plan or other land use regulations/documents may require several measures that are effectively Site Design BMPs (such as minimization of directly connected impervious areas or setbacks from natural drainage courses). The project proponent should consult Permittee staff to determine if those requirements may be identified as Site Design BMPs. See Section 3.5.1 of the WQMP for additional guidance on Site Design BMPs.

The project proponent must complete Table 4, BMP Selection Matrix

Directions for completing Table 4:

- ◆ For each pollutant of concern enter "yes" if identified using Exhibit B (Whitewater River Region WQMP - General Categories of Pollutants of Concern per the instructions specified in Section III of this Template), or "no" if not identified for the project.
 - ◆ Check the boxes of selected BMPs that will be implemented for the project to address each pollutant of concern from the project as identified using Exhibit B. BMPs must be selected and installed with respect to identified pollutant characteristics and concentrations that will be discharged from the site.
 - ◆ For any identified pollutants of concern not listed in the BMP Selection Matrix, provide an explanation of how they will be addressed by the selected BMPs.
2. Provide narrative describing each BMP. Include location, identify the sizing criteria [i.e., Urban Runoff quality design flow (Q_{BMP}) or the Urban Runoff quality design volume (V_{BMP})], preliminary design calculations for sizing BMPs, installation requirements, operation and maintenance procedures, and the frequency of maintenance procedures necessary to sustain BMP effectiveness. The location of each Treatment Control BMP must also be shown on the Site Plan included in Appendix B.

For identified pollutants of concern that are causing an impairment in receiving waters, the project WQMP shall incorporate one or more Site Design or Treatment Control BMPs of medium or high effectiveness in reducing those pollutants. It is the responsibility of the project proponent to demonstrate, and document in the project WQMP, that all pollutants of concern will be fully addressed. The Permittee may require information beyond the minimum requirements of this WQMP to demonstrate that adequate pollutant treatment is being accomplished.

Supporting engineering calculations for Q_{BMP} and/or V_{BMP} , and Site Design and Treatment Control BMP details are included in Appendix F.

Note: Projects that will utilize infiltration-based Site Design or Treatment Control BMPs (e.g., Infiltration Basins, Infiltration Trenches, Porous Pavement) must include a copy of the property/project soils report as Appendix E to the project-specific WQMP. The selection of a Treatment Control BMP (or BMPs) for the project must specifically consider the effectiveness of the Treatment Control BMP for pollutants identified as causing an impairment of Receiving Waters to which the project will discharge Urban Runoff.

Table 2. Site Design BMPs

Design Concept	Technique	Specific BMP	Included			Brief Reason for All BMPs Indicated as No or N/A
			Yes	No	N/A	
Site Design Concept 1 Can these be incorporated into the landscape areas and swale? Minimize Volume of Runoff Produced (See WQMP Section 3.5.1.2)		Conserve natural areas by concentrating or cluster development on the least environmentally sensitive portions of a site while leaving the remaining land in a natural, undisturbed condition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.1.1 Conserve Natural Areas <i>See comments on Page 13</i>
		Conserve natural areas by incorporating the goals of the Multi-Species Habitat Conservation Plan or other natural resource plans.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	See Section 5.1.1.1 Conserve Natural Areas
		Preserve natural drainage features and natural depressional storage areas on the site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.1.2 Preserve Natural Drainage Features
		Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.1.3 Preserve Existing Trees and Shrubs
		Use natural drainage systems.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.1.4 Use Natural Drainage
		Increase the building floor area ratio (i.e., number of stories above or below ground).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.1.5 Increase Building Floor Area Ratio
		Construct streets, sidewalks and parking lot aisles to minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.1.6 Minimize Street, Sidewalk, and Parking Isle Areas
		Reduce widths of streets where off-street parking is available.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Design driveways with shared access, flared (single lane at street), or wheel strips (paving only under the tires).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.1.7 Minimize Impervious Surfaces
		Other comparable and equally effective Site Design BMP (or BMPs) as approved by the Permittee (Note: Additional narrative required to describe BMP and how it addresses site design concept).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Project Site Design BMPs:

5.1.1.1 Conserve Natural Areas

Yes

The site has been designed to conserve as much existing natural area as possible. Landscaping will be incorporated between buildings, along the driveways, pedestrian walkways, and property boundaries to serve as permeable areas that enhance opportunities for infiltration. A vegetated swale has been designed to run parallel along the Project's ~~southern~~ ^{western} boundary. This vegetated swale will be incorporated in to the Project design to maximize opportunities for retention and infiltration. By protecting the soil surface with vegetation, the impact of raindrops falling on the soil surface will be eliminated, thus protecting the soil from crusting and thereby increasing the infiltration capacity. There are no Multi-Species Habitat Conservation Plan goals for this site location. *incidental*

*where?
show on
plan.*

The following table provides information pertaining to the implementation and maintenance of BMPs used for maximizing the site's natural areas.

BMP	Implementation	Maintenance Requirement	Frequency
Landscaped Areas	Prior to Occupancy	Mow, weed, trim, and remove vegetation, trash, and debris	Twice monthly
Vegetated Swales	Prior to Occupancy	Mow, weed, trim, and remove vegetation, trash, and debris	Twice monthly

5.1.1.2 Preserve Natural Drainage Features

No

The site design will not incorporate the natural drainage features but has included drainage within the landscaping between buildings, and along the pedestrian walkways, and property boundaries. These areas will serve as buffers, and will be integrated with treatment control BMPs. Refer to Appendix B - Site Plan to see location of the landscaped buffers. The site will flow from north to south.

See comment on page 12

The following table provides information pertaining to the implementation and maintenance of BMPs used for the incorporation of landscaped buffers into the Projects design.

BMP	Implementation	Maintenance Requirement	Frequency
Landscaped Areas	Prior to Occupancy	Mow, weed, trim, and remove vegetation, trash, and debris	Twice monthly

5.1.1.3 Preserve Existing Trees and Shrubs

Yes

The Project will keep any existing trees and shrubs that are currently in proposed landscaping areas that do not block the vegetated swales

Show all existing trees and label those that will remain
LANDSCAPE PLAN w/ PRELIMINARY BMP

5.1.1.4 Utilize Natural Drainage

No

This Project will not be incorporating natural drainage channels in the Project design. Project site drainage will generally flow from north to south. The drive aisle will flow in a ~~southern~~ ^{western} direction into curb cuts at the tip of the landscaped planters and between parking stalls, prior to entering the vegetative swale. Refer to Appendix B - Site Plan for location of drainage arrows depicting flows.

Western?

Show all locations on plan

The following table provides information pertaining to the implementation and maintenance of alternative BMPs used for the incorporation of natural drainage into the Project site.

May 1, 2008

BMP	Implementation	Maintenance Requirement	Frequency
Vegetated Swales	Prior to Occupancy	Mow, weed, trim, and remove vegetation, trash, and debris	Twice monthly

5.1.1.5 Increase Building Floor Ratio

Yes

The Project will incorporate four 2-story buildings to increase the building floor ratio.

5.1.1.6 Minimize Street, Sidewalk, and Parking Isle Areas

Yes

The Project will be designed to minimize sidewalk and parking lot and isle area to minimize impervious area. Refer to Appendix B - Site Plan to see the location of Porous Pavement.

Is this being proposed?
Where?
Show on plan.

5.1.1.7 Minimize the Use of Impervious Surfaces

Yes

The site has been designed to minimize the impervious surface area by conserving as much existing natural area as possible. Landscaping will be incorporated between buildings, along the pedestrian walkways, and property boundaries to serve as permeable areas that enhance opportunities for infiltration. A vegetated swale has been designed to run parallel along the Project's southern boundary. This vegetated swale will be incorporated in to the Project design to maximize opportunities for retention and infiltration.

western incidental

Where?
Show on plan

CLASS 5 WELL = PERFORATED PIPE BELOW GRADE
ADD EPA INVENTORY FORM TO ANY DRYWELL
DRYWELLS = CLASS 5 WELLS

Table 2. Site Design BMPs (continued)

Design Concept	Technique	Specific BMP	Included			Brief Reason for Each BMP Indicated as No or N/A
			Yes	No	N/A	
Site Design Concept 2	Promote Onsite Infiltration of Precipitation and Runoff (See WQMP Section 3.5.1.3)	Residential and commercial sites must be designed to contain and infiltrate roof runoff, or direct roof runoff to vegetative swales or buffer areas.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.2.1 Contain and Infiltrate Roof Runoff
		Drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.2.2 Treat Sidewalk Runoff
		Incorporate landscaped buffer areas between sidewalks and streets.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.2.2 Treat Sidewalk Runoff
		Uncovered temporary or guest parking on residential lots paved with a permeable surface, or designed to drain into landscaping.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.2.3 Use Permeable Paving
		Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs used at street corners, and culverts used under driveways and street crossings.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.2.4 Rural Swale System
		Urban curb/swale system: street slopes to curb; periodic swale inlets drain to vegetated swale or biofilter.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.2.5 Urban Swale System
		Dual drainage system: first flush captured in street catch basins and discharged to adjacent vegetated swale or gravel shoulder; high flows connect directly to MS4s.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.2.6 Dual Drainage System
		Maximize the permeable area by constructing walkways, trails, patios, overflow parking, alleys, driveways, low-traffic streets, and other low-traffic areas with open-jointed paving materials or permeable surfaces such as pervious concrete, porous asphalt, unit pavers, and granular materials.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.2.7 Maximize Permeable Area
		Use vegetated drainage swales in lieu of underground piping or imperviously lined swales.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.2.8 Use Vegetated Swales
		Incorporate parking area landscaping into the drainage design.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.2.9 Use Permeable Paving. <i>where?</i>
		Where soil conditions are suitable, use perforated pipe or gravel infiltration pits for low flow infiltration. <i>where?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.2.10 Low Flow Infiltration - <i>where?</i>

project appears to incorporate this.

Show on plan.

Design Concept	Technique	Specific BMP	Included			Brief Reason for Each BMP Indicated as No or N/A
			Yes	No	N/A	
Site Design Concept 3	Provide Retention and Storage for Reuse (See WQMP Section 3.5.1.4)	Construct onsite infiltration BMPs such as dry wells, infiltration trenches, and infiltration basins consistent with vector control objectives.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.2.10 Use Onsite Infiltration BMP
		Construct onsite ponding areas or detention facilities to increase opportunities for infiltration consistent with vector control objectives.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.2.10 Use Onsite Infiltration BMP
		Other comparable and equally effective Site Design BMP (or BMPs) as approved by the Permittee (Note: Additional narrative required describing BMP and how it addresses site design concept).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
		Direct roof runoff into cisterns or rain barrels for reuse.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Roof Runoff Is treated in nearby landscaping <i>has clarity</i>
Site Design Concept 4	Utilize Vegetation or Engineered Soils (See WQMP Section 3.5.1.5)	Other comparable and equally effective Site Design BMP (or BMPs) as approved by the Permittee (Note: Additional narrative required describing BMP and how it addresses site design concept).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>is treated</i>
		Use vegetated drainage swales in lieu of underground piping or imperviously lined swales.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.4.1 Use Vegetated Swales
		Incorporate tree well filters, flow-through planters, and/or bioretention areas into landscaping and drainage plans.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section 5.1.4.1 Use Vegetated Swales
		Other comparable and equally effective Site Design BMP (or BMPs) as approved by the Permittee (Note: Additional narrative required describing BMP and how it addresses site design concept).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Project Site Design BMPs:

5.1.2.1 Contain and Infiltrate Roof Runoff

Yes

Rooftops will drain into adjacent landscaping prior to entering a vegetated swale.

The following table provides information pertaining to the implementation and maintenance of BMPs used for draining impervious areas to landscaped areas.

BMP	Implementation	Maintenance Requirement	Frequency
Vegetated Swales	Prior to Occupancy	Mow, weed, trim, and remove vegetation, trash, and debris	Twice monthly
Landscaped Areas	Prior to Occupancy	Mow, weed, trim, and remove vegetation, trash, and debris	Twice monthly

5.1.2.2 Treat Sidewalk, Driveway Runoff

Yes

Impervious areas will drain to landscaping prior to entering the storm drain system. Landscaping is incorporated between buildings, and along the parking stalls, pedestrian walkways, and property boundaries. These areas serve as buffers, and will be integrated with treatment control BMPs. Refer to the site plan in Appendix B to see location of buffers.

- mst or do you mean basin?

↳ drain to basin

The following table provides information pertaining to the implementation and maintenance of BMPs used for draining impervious areas to landscaped areas.

BMP	Implementation	Maintenance Requirement	Frequency
Landscaped Areas	Prior to Occupancy	Mow, weed, trim, and remove vegetation, trash, and debris	Twice monthly

5.1.2.3 Use Permeable Paving

No

This Project does implement Pervious Paving. ✓

project indicates permeable pavement proposed on Page (15)

5.1.2.4 Rural Swale System

No

This Project does not propose any interior streets. In lieu of a rural swale system, the drive aisle will drain to an infiltration basin. ✓

The following table provides information pertaining to the implementation and maintenance of BMPs used for incorporating vegetative swales into the site's drainage design.

5.1.2.5 Urban Swale System

No

This Project does not propose any interior streets. In lieu of an urban curb/swale system, the drive aisle will drain to an infiltration basin.

The following table provides information pertaining to the implementation and maintenance of BMPs used for incorporating vegetative swales into the site's drainage design.

5.1.2.6 Dual Drainage System

No

This Project does not propose any interior streets. However, the site has incorporated a dual drainage system to treat on-site flows. The drive aisle will drain to an infiltration basin and vegetated swales prior to entering storm drains. *clarify.*

BMPs listed in table below are not Treatment BMPs

The following table provides information pertaining to the implementation and maintenance of BMPs used for incorporating dual drainage systems into the Project's design. *clarify*

BMP	Implementation	Maintenance Requirement	Frequency
Vegetated Swales	Prior to Occupancy	Mow, weed, trim, and remove vegetation, trash, and debris	Twice monthly
Landscaped Areas	Prior to Occupancy	Mow, weed, trim, and remove vegetation, trash, and debris	Twice monthly

5.1.2.7 Maximize Permeable Areas

Yes

The site has been designed to minimize the impervious surface area by conserving as much existing natural area as possible. Landscaping will be incorporated between buildings, along the parking stalls, pedestrian walkways, and property boundaries to serve as permeable areas that enhance opportunities for infiltration. A vegetated swale has been designed to run parallel along the Project's southern boundary. This vegetated swale will be incorporated in to the Project design to maximize opportunities for retention and infiltration. *western incidental*

5.1.2.8 Use Vegetated Swales in Lieu of Underground Piping

Yes

The Project will incorporate a vegetated filtration swale along the southern property boundary in lieu of underground storm drain pipes and lined swales.

5.1.2.9 Use Permeable Paving

No

This Project does not implement Pervious Paving. *clarify what is meant by "filtration" here.*

5.1.2.10 Use On-site Infiltration BMP

Yes

The Project will incorporate an Infiltration Basin at the south east corner of the site to treat some of the Project flows.

5.1.4.11 Use Vegetated Swales

Yes

A vegetated filtration swale has been designed to run parallel along the Project's southern boundary. This vegetated swale will be incorporated in to the Project design to maximize opportunities for retention and infiltration. *incidental*

5.1.4.12 Other Site Design Concepts

No

The site can effectively treat most potential Project pollutants utilizing Site Design Concepts 1 thru 4. Pollutants of concern will be treated with a more robust BMP -- an infiltration basin. ✓

*APPENDIX C ORD
PEN-CALTRANS
IS RELIABLE*

Table 3. Site Design BMPs Measurable Goal Summary

<u>Site Design BMP</u>	<u>Site Design BMP Sizing</u> {	<u>Drainage Subarea ID or No.</u>	<u>Site Design BMP Tributary Area</u> (nearest 0.1 acre)
Vegetated Swale	Q = 0.12 ft ³ /s	A	0.8 Ac.
Infiltration Basin	V = 3,330 ft ³	B	2.3 Ac.
<u>Total of Site Design BMP Tributary Areas (nearest 0.1 acre)</u>			2.3 Ac.
<u>Total Project Site Area (nearest 0.1 acre)</u>			2.3 Ac.

Vegetated swale is receiving runoff from 0.8 acres of the 2.3 acre site. The swale is sized for a Q of 0.12 ft³/s. The proposed infiltration basin will receive runoff from the entire site and will handle a volume of 3,330 ft³. The infiltration basin will also treat the Project pollutants of concern at a med/high level. See Appendix F for treatment BMP sizing.

Table 4: BMP Selection Matrix⁽¹⁾

<div style="position: relative;"> <div style="position: absolute; top: -40px; left: -40px; transform: rotate(-30deg); font-family: cursive;"> P.O.C.s are Bacteria + organic compounds Not nutrient + S. </div> Pollutant of Concern </div>	Treatment Control BMP Categories ⁽²⁾							
	Veg. Swale & Veg. Filter Strips ⁽³⁾	Detention Basins ⁽⁴⁾	Infiltration Basins, Infiltration Trenches, & Porous Pavement ⁽⁵⁾	Wet Ponds or Wetlands ⁽⁶⁾	Sand Filter or Media Filters	Water Quality Inlets	Hydrodynamic Separator Systems ⁽⁷⁾	Manufactured/Proprietary Devices ⁽⁸⁾
Sediment/Turbidity Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	H/M <input type="checkbox"/>	M <input type="checkbox"/>	H/M <input checked="" type="checkbox"/>	H/M <input type="checkbox"/>	H/M <input type="checkbox"/>	L <input type="checkbox"/>	H/M; L for turbidity <input type="checkbox"/>	U <input type="checkbox"/>
Nutrients Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	L <input type="checkbox"/>	M <input type="checkbox"/>	H/M <input checked="" type="checkbox"/>	H/M <input type="checkbox"/>	L/M <input type="checkbox"/>	L <input type="checkbox"/>	L <input type="checkbox"/>	U <input type="checkbox"/>
Organic Compounds Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/>	U <input type="checkbox"/>	U <input type="checkbox"/>	U <input checked="" type="checkbox"/>	U <input type="checkbox"/>	H/M <input type="checkbox"/>	L <input type="checkbox"/>	L <input type="checkbox"/>	U <input type="checkbox"/>
Trash & Debris Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	L <input type="checkbox"/>	M <input type="checkbox"/>	U <input checked="" type="checkbox"/>	U <input type="checkbox"/>	H/M <input type="checkbox"/>	M <input type="checkbox"/>	H/M <input type="checkbox"/>	U <input type="checkbox"/>
Oxygen Demanding Substances Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	L <input type="checkbox"/>	M <input type="checkbox"/>	H/M <input checked="" type="checkbox"/>	H/M <input type="checkbox"/>	H/M <input type="checkbox"/>	L <input type="checkbox"/>	L <input type="checkbox"/>	U <input type="checkbox"/>
Bacteria & Viruses Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	U <input type="checkbox"/>	U <input type="checkbox"/>	H/M <input checked="" type="checkbox"/>	U <input type="checkbox"/>	H/M <input type="checkbox"/>	L <input type="checkbox"/>	L <input type="checkbox"/>	U <input type="checkbox"/>
Oils & Grease Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	H/M <input type="checkbox"/>	M <input type="checkbox"/>	U <input checked="" type="checkbox"/>	U <input type="checkbox"/>	H/M <input type="checkbox"/>	M <input type="checkbox"/>	L/M <input type="checkbox"/>	U <input type="checkbox"/>
Pesticides (non-soil bound) Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	U <input type="checkbox"/>	U <input type="checkbox"/>	U <input checked="" type="checkbox"/>	U <input type="checkbox"/>	U <input type="checkbox"/>	L <input type="checkbox"/>	L <input type="checkbox"/>	U <input type="checkbox"/>
Metals Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	H/M <input type="checkbox"/>	M <input type="checkbox"/>	H <input checked="" type="checkbox"/>	H <input type="checkbox"/>	H <input type="checkbox"/>	L <input type="checkbox"/>	L <input type="checkbox"/>	U <input type="checkbox"/>

Abbreviations: L: Low removal efficiency H/M: High or medium removal efficiency U: Unknown removal efficiency

Notes:

- (1) Periodic performance assessment and updating of the guidance provided by this table may be necessary.
- (2) Project applicants should base BMP designs on the Riverside County Whitewater River Region Stormwater Quality Best Management Practice Design Handbook. However, project applicants may also wish to reference the California Stormwater BMP Handbook – New Development and Redevelopment (www.cabmphandbooks.com). The Handbook contains additional information on BMP operation and maintenance.
- (3) Includes grass swales, grass strips, wetland vegetation swales, and bioretention.
- (4) Includes extended/dry detention basins with grass lining and extended/dry detention basins with impervious lining. Effectiveness based upon minimum 36-48-hour drawdown time.
- (5) Projects that will utilize infiltration-based Treatment Control BMPs (e.g., Infiltration Basins, Infiltration Trenches, Porous Pavement, etc.) must include a copy of the property/project soils report as Appendix E to the project-specific WQMP. The selection of a Treatment Control BMP (or BMPs) for the project must specifically consider the effectiveness of the Treatment Control BMP for pollutants identified as causing an impairment of Receiving Waters to which the project will discharge Urban Runoff.
- (6) Includes permanent pool wet ponds and constructed wetlands.
- (7) Also known as hydrodynamic devices, baffle boxes, swirl concentrators, or cyclone separators.
- (8) Includes proprietary stormwater treatment devices as listed in the CASQA Stormwater Best Management Practices Handbooks, other stormwater treatment BMPs not specifically listed in this WQMP, or newly developed/emerging stormwater treatment technologies.

The location of each Treatment Control BMP is shown on the Site Plan included in Appendix B.

Supporting engineering calculations for Q_{BMP} and/or V_{BMP} , and Treatment Control BMP design details will be included in Appendix F in the F-WQMP. ✓

Note: Projects that will utilize infiltration-based Treatment Control BMPs (e.g., Sand Filtration Basins, Infiltration Trenches and Infiltration basins) must include a copy of the property/project soils report as Appendix E to the project-specific WQMP. The selection of a Treatment Control BMP (or BMPs) for the project must specifically consider the effectiveness of the Treatment Control BMP for pollutants identified as causing an impairment of Receiving Waters to which the project will discharge Urban Runoff.

5.1.3 Treatment Control BMP Design Criteria

This site utilizes a combination of flow-based and volume-based BMP design criteria as a means of transporting and distributing flow through the proposed treatment control BMPs whereby Project pollutants can be treated prior to leaving the site. Once treated, flows infiltrate into the ground on site. All treatment control BMPs will be designed in accordance with the criteria approved by the City of Coachella for BMP design at the time the treatment control devices are being designed.

V.2 SOURCE CONTROL BMPs

Instructions:

Complete Table 5.

Table 5. Source Control BMPs

BMP Name	Check One		If not applicable, state brief reason
	Included	Not Applicable	
Non-Structural Source Control BMPs			
Education for Property Owners, Operators, Tenants, Occupants, or Employees	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Activity Restrictions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Irrigation System and Landscape Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Common Area Litter Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Street Sweeping Private Streets and Parking Lots	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Drainage Facility Inspection and Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Structural Source Control BMPs			
MS4 Stenciling and Signage	<input type="checkbox"/>	<input checked="" type="checkbox"/>	provide brief reason or
Landscape and Irrigation System Design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	reference
Protect Slopes and Channels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	location
Provide Community Car Wash Racks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	of
Properly Design:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	text
Fueling Areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Air/Water Supply Area Drainage	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Trash Storage Areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Loading Docks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Maintenance Bays	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Vehicle and Equipment Wash Areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Outdoor Material Storage Areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Outdoor Work Areas or Processing Areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Provide Wash Water Controls for Food Preparation Areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Instructions:

Provide narrative below describing how each included Source Control BMP will be implemented, the implementation frequency, inspection and maintenance frequency, inspection criteria, and the entity or party responsible for implementation, maintenance, and/or inspection. The location of each structural BMP must also be shown on the WQMP Site Plan included in Appendix B.

5.2.2 Structural Source Control BMPs

5.2.2.1 Storm Drain Stenciling

No

This project does not feature storm drain in the Project design.

5.2.2.2 Landscape Design

Yes

The Project will include the following design characteristics for landscape planning: Landscaping has been incorporated into the Project's design to increase the site's permeability; planting native vegetation to reduce irrigation, fertilizer, and pesticide needs; selecting plants that require little maintenance and/or pest control; incorporating an infiltration basin to extend the time that peak runoff flows leave the site while enhancing water quality through filtration; and planting grasses in the vegetative swale that are capable of withstanding flow velocities and short term inundation.

Roof runoff controls will direct storm flow into adjacent landscaping. Walkways will drain into adjacent landscaping, and/or a vegetative swale. Storm flows will be directed from drive aisle to a vegetated swale.

The Project will utilize irrigation systems in the proposed landscaped areas as specified by the landscape plan. Landscape plans will be consistent with the City of Coachella's requirements for water conservation and vegetation. Landscaped areas will be watered using programmable irrigation systems. Short cycles of watering will be used in order to reduce the amount of excess runoff into the storm drain system. Drought tolerant plants, shrubs, trees, grasses, and plants will be planted to reduce the frequency, amount, and duration of irrigation water.

5.2.2.3 Slopes and Channels

Yes

There are no slopes or channels proposed as a part of this Project design, however, a swale is being proposed. Refer to Table 14 for maintenance information pertaining to vegetative swales.

5.2.2.4 Vehicle Wash Racks

No

The Project will not feature any vehicle wash racks. An activity restriction will be placed on vehicle washing by tenants and employees. This activity restriction will be incorporated in to the CC&Rs. Refer to Appendix G – Agreements of this F-WQMP for restriction detail.

5.2.2.5 Project Specific Design Features

The Project F-WQMP calls for the proper design of the following:

5.2.2.5.A *Fueling Areas*

No

The Project does not feature any fueling areas.

5.2.2.5.B *Air/Water Supply*

No

The Project does not feature any air/water supply drainage areas.

5.2.2.5.C *Trash Storage Areas*

Yes

Trash dumpsters will have attached covers. The trash storage area will be enclosed and will be paved with an impervious surface such as concrete. The area has been graded to prevent run-on from adjoining areas, while providing for drainage inlets at the hinge point, which is at the foot of the enclosure, to protect the drive aisle from becoming inundated with runoff from the trash enclosure area.

5.2.2.5.D *Loading Docks*

No

The Project does not feature any loading docks.

5.2.2.5.E *Maintenance Bays*

No

The Project does not feature any maintenance bays.

5.2.2.5.F *Vehicle Wash Areas*

No

The Project does not feature any vehicle wash areas.

5.2.2.5.G *Material Storage*

The Project does not feature any outdoor material storage areas.

5.2.2.5.H *Outdoor Work Areas*

No

The Project does not feature any outdoor work areas.

5.2.2.6 *Food Preparation Areas*

No

The Project will not feature any food preparation areas.

show locations
and flow
directions on plan

Appendix D includes copies of the educational materials that will be used in implementing this project-specific WQMP.

V. 3 EQUIVALENT TREATMENT CONTROL ALTERNATIVES

This Project will not feature any other treatment control alternatives.

V. 3 REGIONALLY-BASED TREATMENT CONTROL BMPs

This Project does not feature any regionally based treatment control BMPs.

VI. Operation and Maintenance Responsibility for BMPs

Instructions:

Operation and maintenance (O&M) requirements for all structural Site Design, Source Control and Treatment Control BMPs shall be identified in the project-specific WQMP. The project-specific WQMP shall address the following:

- Identification of each BMP that requires O&M.
- Thorough description of O&M activities, the O&M process, and the handling and placement of any wastes.
- BMP start-up dates.
- Schedule of the frequency of O&M for each BMP.
- Identification of the parties (name, address, and telephone number) responsible for O&M, including a written agreement with the entities responsible for O&M. This agreement can take the form of a Covenant and Agreement recorded by the Project Proponent with the County Recorder, HOA or POA CC&Rs, formation of a maintenance district or assessment district or other instrument sufficient to guarantee perpetual O&M. The preparer of this project-specific WQMP should carefully review Section 3.6 of the WQMP prior to completing this section of the project-specific WQMP.
- Self-inspections and record-keeping requirements for BMPs (review local specific requirements regarding self-inspections and/or annual reporting), including identification of responsible parties for inspection and record-keeping.
- Thorough descriptions of water quality monitoring, if required by the Permittee.

Identify below all operations and maintenance requirements, as described above, for each structural BMP. Where a public agency is identified as the funding source and responsible party for a BMP, a copy of the written agreement stating the public agency's acceptance of these responsibilities must be provided in Appendix G.

Note: O&M must also include all BMPs listed with an "included" on page (22). Provide

6.1 BMPs Requiring Maintenance and Maintenance Requirements

Table 14 identifies the BMPs, the maintenance requirements, and frequency of maintenance for all structural BMPs and treatment control BMPs.

BMP Requiring Maintenance	Inspection Frequency	Party Responsibility	Implementation Dates	Maintenance Frequency	Maintenance Requirements
Landscaped Areas	Twice monthly	Owner	Post-construction	Twice monthly	Mow, weed, trim, and remove accumulation of trash and debris
Irrigation Systems	As needed	Owner	Post-construction	As needed	Replace/repair leaky or broken sprinkler

BMP Requiring Maintenance	Inspection Frequency	Party Responsibility	Implementation Dates	Maintenance Frequency	Maintenance Requirements
					heads, maintenance/replace shut off valves, and replace/maintain timing apparatuses
Parking Lots	Quarterly	Owner	Post-construction	Quarterly Annually	Use vacuum sweep Pressure wash pervious areas.
Vegetated Swales	Twice monthly After storm events	Owner	Post-construction	Twice monthly After storm events	Mow, weed, trim, and remove accumulations of trash and debris during landscape maintenance. Remove 1" to 2" of sand from the filter area when filtration slows or when water stands longer than 48-hours.
Trash Enclosures	Twice monthly Weekly	Owner Waste Management	Occupancy Occupancy	Monthly Weekly	Remove debris and clean enclosure Empty dumpsters

Table 14 - BMPs Operation and Maintenance

6.2 BMP Inspection and Monitoring

The owner will conduct visual inspections of the source control and treatment control BMPs in accordance with the schedules set forth in Table 14. Operation of the BMPs listed in this WQMP will commence upon the completion of construction. Once the Project is completed and BMPs are implemented, the measures set forth in this WQMP will continue through perpetuity. Water quality monitoring is not proposed as a part of this Project.

the owner is the responsible party for inspections
The City of Coachella and the owner will conduct visual inspections of the source control and treatment control BMPs in accordance with the schedules set forth in Table 14. Water quality monitoring is not proposed as a part of this Project.

6.3 Parties Responsible for BMP Operations and Maintenance

The owner will be responsible for all BMP maintenance. The owner may require tenants to perform certain BMP maintenance on behalf of the owner, in these cases, the owner will diligently enforce lease provisions to ensure that maintenance is performed in accordance with this WQMP. If a tenant defaults

on BMP maintenance, the owner will take appropriate action to ensure BMP maintenance is performed. Nothing in this WQMP shall prevent the owner from pursuing cost recovery from the tenant or other remedies for the default as provided by the lease and law.

Accumulated trash and debris, sediment, and pollutants removed during BMP maintenance will be disposed of in accordance with state and local regulations. In most cases, dry debris and sediment can be disposed in the trash. Wet debris will need to be air dried before disposal. Any debris or sediment expected to contain pollutants at levels exceeding levels acceptable in the local landfill shall be tested and disposed of properly based on test results.

The owner will maintain, and will require tenants to maintain, records of formal inspections. Tenants shall be required through the lease to provide the owner with copies of inspection results within 30 days of any required inspection. At least once each year, a formal inspection of the entire site will be completed and the results documented. Inspection results will be maintained on file for not less than three years following the date of the inspection.

proper receptacle

- INSPECTION FREQUENCY
- MAINTENANCE FREQUENCY
- START DATE
- PRP
- 48 HOUR ^{WATER} QUALITY STANDARD - DRAIN BASIN

VII. Funding

Instructions:

A funding source or sources for the O&M of each Site Design and Treatment Control BMP identified in the project-specific WQMP must be identified. By certifying the project-specific WQMP, the Project applicant is certifying that the funding responsibilities have been addressed and will be transferred to future owners. One example of how to adhere to the requirement to transfer O&M responsibilities is to record the project-specific WQMP against the title to the property.

A source of funding is required for all site design, source control, and treatment control BMPs. For this Project, the owner of the Project will fund the implementation, operation, and maintenance of all BMPs set forth in this WQMP. Where the owner requires a lessee to implement, operate, and maintain BMPs, the owner will maintain ultimate funding responsibilities, and will, upon default of a lessee to fulfill lease responsibilities for implementation, operation, and maintenance of BMPs, shall cause the same to be performed at owner's expense. Nothing in this WQMP shall prevent the owner from pursuing cost recovery from the tenant or the remedies for the default as provided by the lease and law.

Owner/Developer will be responsible for all BMP implementation, operation, and maintenance until such time that the business condominiums are sold.

Joe Developer
ABC Development Company
800 Unknown Street
Riverside, CA 92501
(951) 555-1111

Is intent to lease office buildings as indicated on page (3)?

IF So, why responsible only till units sold? Clarify.

IF No P.O.A and units are leased, will owner maintain open space and buildings? IF Sold, will P.O.A. be required to maintain BMPs, etc. clarify in this document.

Appendix A

Conditions of Approval

Planning Commission Resolution PA01-2345

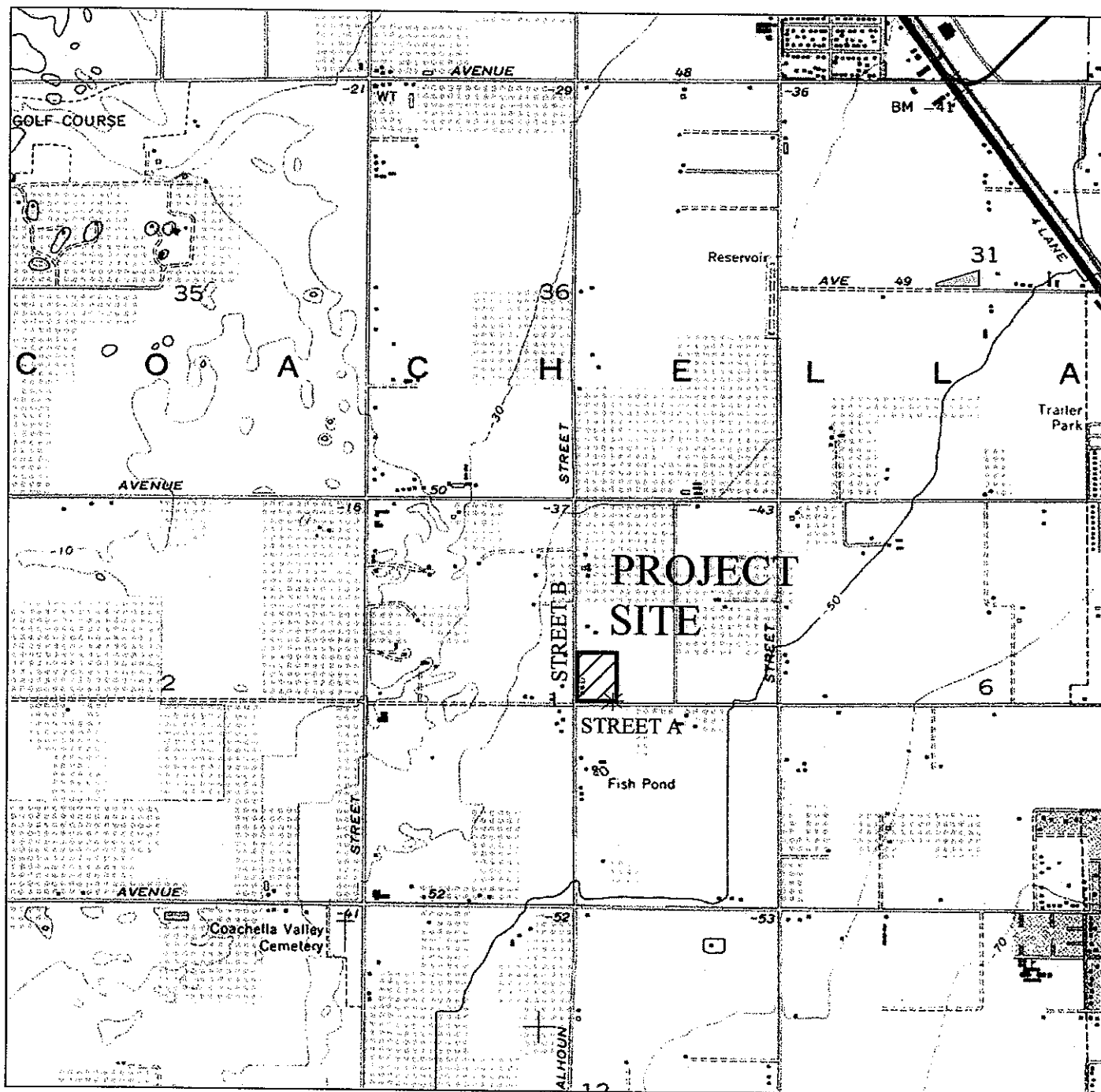
Dated May 1st

*Include C.O.A. documents
inside WQMP. Highlight
Conditions related to
Water Quality*

Appendix B

Vicinity Map, WQMP Site Plan, and Receiving Waters Map

VICINITY MAP FOR ABC ENGINEERING ABC BUSINESS PARK COUNTY OF RIVERSIDE



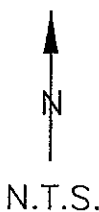
LEGEND:



PROJECT AREA

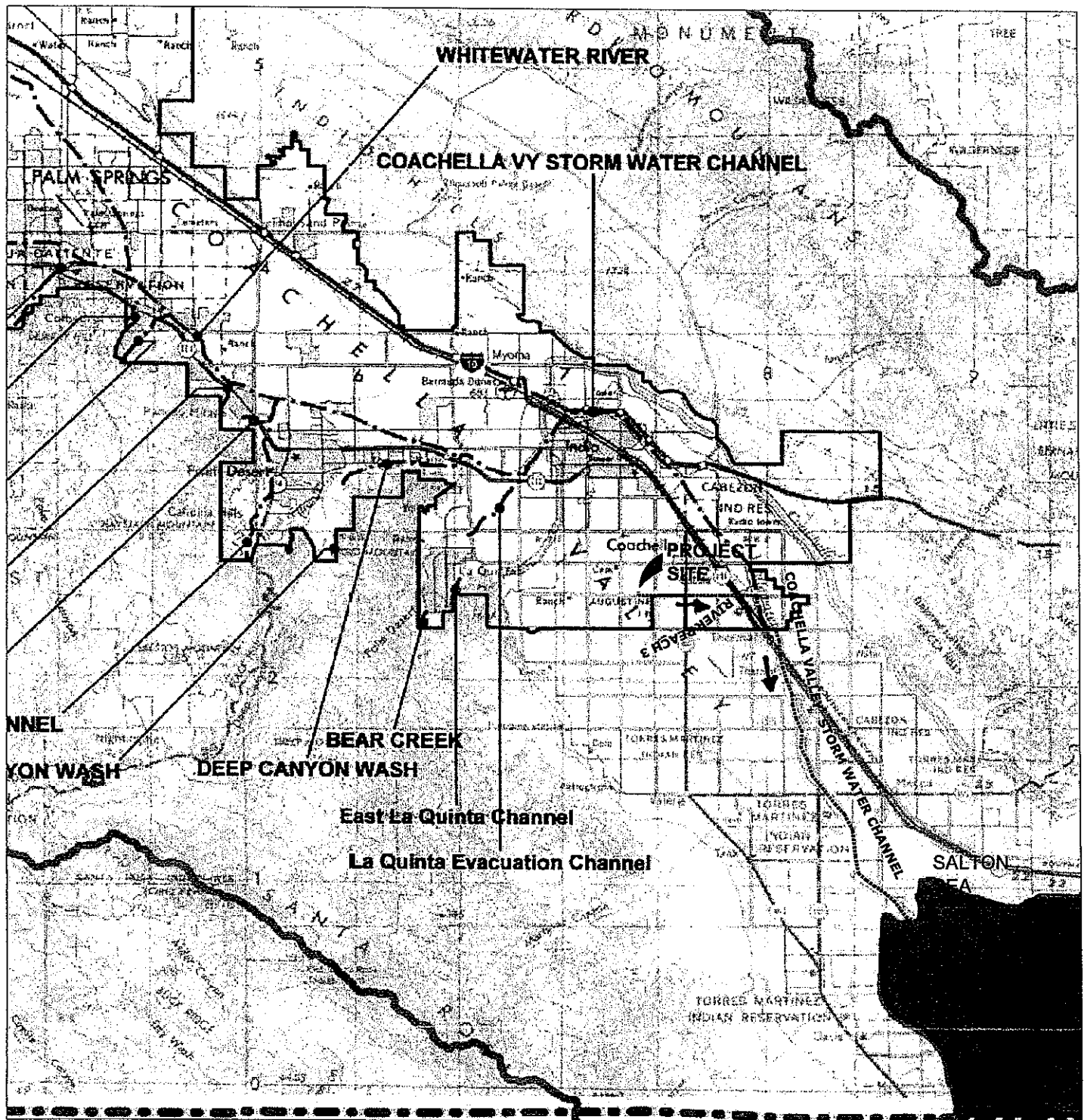


DISCHARGE POINT



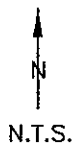
ABC ENGINEERING
123 ABC ROAD
COACHELLA, CA 92236

RECEIVING WATERS FOR ABC BUSINESS PARK IN THE CITY OF MURRIETA, COUNTY OF RIVERSIDE



LEGEND:

----- FLOW PATH



ABC ENGINEERING
123 ABC ROAD
COACHELLA, CA 92236

Appendix C

Supporting Detail Related to Hydraulic Conditions of Concern

4.1 Condition A:

4.1.1 Runoff from the Project is discharged directly to a publicly-owned, operated, and maintained MS4;

ABC Business Park will drain to Coachella Valley Storm Drain system and eventually outlet into the Coachella Valley Storm water Channel. The storm drain and is owned, operated and maintained by the City of Coachella. When the drainage plan was originally designed, the site was zoned for commercial/industrial development and was allotted to receive a runoff coefficient of 0.9. Incorporating site design (vegetated swale and infiltration) has reduced the expected runoff coefficient for the commercial development from 0.9 to 0.85. Given that treated flows from this Project directly discharge to a publicly owned, operated, and maintained MS4, substantiates that this requirement has been satisfied.

4.1.2 The discharge is in full compliance with Co-Permittee requirements for connections and discharges to the MS4 (including both quality and quantity requirements);

This Project is required to obtain permits for discharging into the MS4. In order to obtain a permit, the Applicant is required to prepare and implement a Water Quality Management Plan in accordance with the Whitewater River Region Water Quality Management Plan for Urban Runoff, dated April, 2009. In accordance with this document, the ABC Business Park Project will implement site design, source control, and treatment control BMPs designed to reduce and/or control the impacts to water quality that result from new development. Upon City approval of this F-WQMP, which describes BMPs for the Project, and the receipt of City permits, the Project will be in full compliance with the Co-Permittee's requirements for connection and discharge to the City owned MS4.

4.1.3 The discharge would not significantly impact stream habitat in proximate Receiving Waters;

ABC Business Park will incorporate site design, source control, and treatment control BMPs to reduce and control the discharge of pollutants associated with the development. These BMPs are described in this F-WQMP. These same BMPs will also reduce the runoff coefficient for the site from $C=0.90$ (the value assumed in the Coachella Valley Master Drainage Plan for the storm drain serving the site) to $C=0.85$ thereby resulting in less runoff volume and lower peak flows from the site than planned for in the Coachella Valley Master Drainage Plan. The combination of pollutant discharge control BMPs and runoff control BMPs will reduce the potential for the Project to significantly impact stream habitat in proximate receiving waters.

4.1.4 And the discharge is authorized by the Co-Permittee.

The Applicant is required to obtain permits by the City of Coachella's municipal code. By receiving permits from the City and maintaining compliance with said permits, this requirement of Condition A will be met.

Appendix D

Educational Materials

- Include educational materials per Riverside County Public Education staff.
www.reflood.org

Appendix E

Soils Report

SOILS ENGINEERING, INC.

12345 Soils Drive
Coachella, CA 92336

Joe Developer
ABC Development Company
800 Unknown Street
Riverside, CA 92501

Project : Coachella Business Park

Prepared Location:
123 Street A
Coachella, CA 92236

Dear Joe,

We have conducted on-site in-situ percolation testing utilizing the Double Ring Infiltrometer field Method and soil borings. Our test pits were located in the proposed footprint location of the proposed infiltration basin and our results are as follows:

Test Pit	Infiltration Rate
P-1	3.3 in/hr
P-2	3.1 in/hr
P-3	2.8 in/hr

The resulting percolation factors from all three locations were consistent with Soils type in the Area. Soil type for this project has been classified as Type A Soils.

Based on the testing done, it is our recommendation that the most conservative value of the in-situ testing be used for design of the percolation basin proposed for this project, 2.8 in/hr. If you have any questions or required further information, please call my office at (951) 555-0000.

Sincerely,

Soils Engineer

- Provide map of test pit locations
- Provide soils engineer's stamp and signature to verify validity of report.

Note: recommended field method.

Appendix F

Treatment Control BMP Sizing Calculations and Design Details

Table 4. Runoff Coefficients for an Intensity = 0.2 in/hr for Urban Soil Types*

Impervious %	A Soil RI =32	B Soil RI =56	C Soil RI =69	D Soil RI =75
0 (Natural)	0.06	0.14	0.23	0.28
5	0.10	0.18	0.26	0.31
10	0.14	0.22	0.29	0.34
15	0.19	0.26	0.33	0.37
20 (1-Acre)	0.23	0.30	0.36	0.40
25	0.27	0.33	0.39	0.43
30	0.31	0.37	0.43	0.47
35	0.35	0.41	0.46	0.50
40 (1/2-Acre)	0.40	0.45	0.50	0.53
45	0.44	0.48	0.53	0.56
50 (1/4-Acre)	0.48	0.52	0.56	0.59
55	0.52	0.56	0.60	0.62
60	0.56	0.60	0.63	0.65
65 (Condominiums)	0.61	0.64	0.66	0.68
70 (Mobilehomes)	0.65	0.67	0.70	0.71
75 (Mobilehomes)	0.69	0.71	0.73	0.74
80 (Apartments)	0.73	0.75	0.77	0.78
85 (Apartments)	0.77	0.79	0.80	0.81
90 (Commercial)	0.82	0.82	0.83	0.84
95	0.86	0.86	0.87	0.87
100	0.90	0.90	0.90	0.90

*Complete District's standards can be found in the Riverside County Flood Control Hydrology Manual

Worksheet 2

Design Procedure Form for Design Flow		Swale
Uniform Intensity Design Flow		
Designer:	J. Smith	
Company:	ABC Engineering	
Date:	May 1st	
Project:	Coachella Business Park	
Location:	Coachella CA	
1. Determine Impervious Percentage		
a. Determine total tributary area	$A_{total} = 0.8$ acres (1)	
b. Determine Impervious %	$i = 85$ % (2)	
2. Determine Runoff Coefficient Values Use Table 4 and impervious % found in step 1		
a. A Soil Runoff Coefficient	$C_a = 0.77$ (3)	
b. B Soil Runoff Coefficient	$C_b =$ (4)	
c. C Soil Runoff Coefficient	$C_c =$ (5)	
d. D Soil Runoff Coefficient	$C_d =$ (6)	
3. Determine the Area decimal fraction of each soil type in tributary area		
a. Area of A Soil / (1) =	$A_a = 1$ (7)	
b. Area of B Soil / (1) =	$A_b =$ (8)	
c. Area of C Soil / (1) =	$A_c =$ (9)	
d. Area of D Soil / (1) =	$A_d =$ (10)	
4. Determine Runoff Coefficient		
a. $C = (3) \times (7) + (4) \times (8) + (5) \times (9) + (6) \times (10) =$	$C = 0.77$ (11)	
5. Determine BMP Design flow		
a. $Q_{BMP} = C \times I \times A = (11) \times 0.2 \times (1)$	$Q_{BMP} = 0.12$ $\frac{ft^3}{s}$ (12)	

Worksheet 2

Design Procedure Form for Design Flow		Basin
Uniform Intensity Design Flow		
Designer:	J. Smith	
Company:	ABC Engineering	
Date:	May 1st	
Project:	Coachella Business Park	
Location:	Coachella, CA	
1. Determine Impervious Percentage		
a. Determine total tributary area	$A_{total} = 2.3$ acres (1)	
b. Determine Impervious %	$i = 70$ % (2)	
2. Determine Runoff Coefficient Values Use Table 4 and impervious % found in step 1		
a. A Soil Runoff Coefficient	$C_a = 0.65$ (3)	
b. B Soil Runoff Coefficient	$C_b =$ (4)	
c. C Soil Runoff Coefficient	$C_c =$ (5)	
d. D Soil Runoff Coefficient	$C_d =$ (6)	
3. Determine the Area decimal fraction of each soil type in tributary area		
a. Area of A Soil / (1) =	$A_a = 1$ (7)	
b. Area of B Soil / (1) =	$A_b =$ (8)	
c. Area of C Soil / (1) =	$A_c =$ (9)	
d. Area of D Soil / (1) =	$A_d =$ (10)	
4. Determine Runoff Coefficient		
a. $C = (3) \times (7) + (4) \times (8) + (5) \times (9) + (6) \times (10) =$	$C = 0.65$ (11)	
5. Determine BMP Design flow		
a. $Q_{BMP} = C \times I \times A = (11) \times 0.2 \times (1)$	$Q_{BMP} = 0.30 \frac{ft^3}{s}$ (12) ✓	

Worksheet 1

Design Procedure for BMP Design Volume

Designer: J. Smith
 Company: ABC Engineering
 Date: May 1st
 Project: Coachella Business Park
 Location: Coachella, CA

1. Determine the Tributary Area to the BMP (A_{trib})	$A_{trib} =$ <u>2.3</u> acres (1)
2. Determine the impervious area ratio (i)	
a. Determine impervious area within (A_{trib})	$A_{imp} =$ <u>1.61</u> acres (2)
b. Calculate $i = (2) / (1)$	$i =$ <u>0.70</u> $\frac{\text{acres}}{\text{acre}}$ (3)
3. Determine Runoff Coefficient (C) $C = 0.858 \cdot i^3 - 0.78 \cdot i^2 + 0.774 \cdot i + 0.04$ $C = 0.858 \cdot (3)^3 - 0.78 \cdot (3)^2 + 0.774 \cdot (3) + 0.04$	$C =$ <u>0.49</u> (4)
4. Determine Unit Storage Volume (V_u) $V_u = 0.40 \cdot C$ $V_u = 0.40 \cdot (4)$	$V_u =$ <u>0.196</u> $\frac{\text{acre-in}}{\text{acre}}$ (5)
5. Determine Design Storage Volume	
a. $V_{BMP} = (5) \times (1)$ [acre-in]	$V_{BMP} =$ <u>0.45</u> acre-in (6)
b. $V_{BMP} = (6) / 12$ [acre-ft]	$V_{BMP} =$ <u>0.038</u> acre-ft (7)
c. $V_{BMP} = (7) \times 43560$ [ft ³]	$V_{BMP} =$ <u>1,636</u> ft ³ (8) ✓

Notes:

See attached basin Volume
Calculation Worksheet 4

Also
 ADD
 100% STORM
 CALCULATION
 TO CLARIFY

Worksheet 4

Design Procedure Form for Infiltration Basin

Designer: J. Smith
 Company: ABC Engineering
 Date: May 1st
 Project: Coachella Business Park
 Location: Coachella, CA

1. Determine Design Storage Volume
(Use Worksheet 1)
- Total Tributary Area (maximum 50)
 - Design Storage Volume, V_{BMP}

$$A_{total} = \underline{2.3} \text{ acres}$$

$$V_{BMP} = \underline{1,636} \text{ ft}^3$$

2. Maximum Allowable Depth (D_m)
- Site infiltration rate (I)
 - Minimum drawdown time (48 hrs)
 - Safety factor (s)
 - $D_m = [(t) \times (I)] / [12s]$

$$I = \underline{2.8} \text{ in/hr}$$

$$t = \underline{48} \text{ hrs}$$

$$s = \underline{3}$$

$$D_m = \underline{3.73} \text{ ft}$$

3. Basin Surface Area

$$A_m = V_{BMP} / D_m$$

$$\underline{1,636 \div 3.73' =}$$

$$A_m = \underline{439} \text{ ft}^2$$

4. Vegetation (check type used or describe "other")

☐ Native Grasses
☒ Irrigated Turf Grass
☐ Other

Notes:

See Provided Infiltration basin
 Calculation on next page for
 proof of proper basin sizing.

Volume Calculation for Proposed Infiltration Basin:

Area at Elev 93: 2,501 SF
Area at Elev 95: 4,389 SF
Area Average: $6,890 \text{ SF} / 2 = 3,445 \text{ SF Average}$

Basin Depth = 2'

Proposed Basin Area: $3,445 \text{ SF} \times 2' \text{ Depth} = \underline{6,890 \text{ Ft}^3}$ of Volume in Basin ✓

Basin Volume of $6,890 \text{ Ft}^3 >$ than required $1,636 \text{ Ft}^3$ of V_{BMP} ✓

Therefore Basin is adequately sized.

Drawdown of basin:

Depth of Basin is $2' <$ calculated $D_M = 3.73'$, therefore basin will drain under 48 hours.

$$DM = \frac{(\text{Time})(\text{infiltration rate})}{12(3 \text{ safety factor})}$$

$$\blacktriangleright \text{Time} = [(DM)(12)(3)] / \text{infiltration rate} = \frac{(2')(12)(3)}{2.8} = 25.7 \text{ Hours to drain WQ volume} \quad \checkmark$$

Hands-on Exercise Covenant and Agreement

Water Quality Management Plan and Urban Runoff BMP Transfer, Access and Maintenance Agreement (adapted from documents from the Ventura County Stormwater Management Program)

Recorded at the request of:

City of Coachella

After recording, return to:

City of Coachella

City Clerk _____

Water Quality Management Plan and Urban Runoff BMP
Transfer, Access and Maintenance Agreement

OWNER: Joe Developer

PROPERTY ADDRESS: 123 Street A

Coachella, CA 92236

APN: 0000-000-00

THIS AGREEMENT is made and entered into in

Riverside, California, this 1st day of

May, by and between

Joe Developer, herein after

- This will be a stand alone example agreement that will be recorded. Remove from binding and submit with original signatures and original notary cert.

referred to as "Owner" and the CITY OF Coachella, a municipal corporation, located in the County of Riverside, State of California hereinafter referred to as "CITY";

WHEREAS, the Owner owns real property ("Property") in the City of

Coachella, County of Riverside, State of California, more specifically described in Exhibit "A" and depicted in Exhibit "B", each of which exhibits is attached hereto and incorporated herein by this reference;

WHEREAS, at the time of initial approval of development project known as

Coachella Business Park within the Property described herein, the City required the project to employ Best Management Practices, hereinafter referred to as "BMPs," to minimize pollutants in urban runoff;

WHEREAS, the Owner has chosen to install and/or implement BMPs as described in the Water Quality Management Plan, on file with the City, hereinafter referred to as "WQMP", to minimize pollutants in urban runoff and to minimize other adverse impacts of urban runoff;

WHEREAS, said WQMP has been certified by the Owner and reviewed and approved by the City;

WHEREAS, said BMPs, with installation and/or implementation on private property and draining only private property, are part of a private facility with all maintenance or replacement, therefore, the sole responsibility of the Owner in accordance with the terms of this Agreement;

WHEREAS, the Owner is aware that periodic and continuous maintenance, including, but not necessarily limited to, filter material replacement and sediment removal, is required to assure peak performance of all BMPs in the WQMP and that, furthermore, such maintenance activity will require compliance with all Local, State, or Federal laws and regulations, including those pertaining to confined space and waste disposal methods, in effect at the time such maintenance occurs;

NOW THEREFORE, it is mutually stipulated and agreed as follows:

1. Owner hereby provides the City of City's designee complete access, of any duration, to the BMPs and their immediate vicinity at any time, upon reasonable notice, or in the event of emergency, as determined by City's Director of Public Works no advance notice, for the purpose of inspection, sampling, testing of the Device, and in case of emergency, to undertake all necessary repairs or other preventative measures at owner's expense as provided in paragraph 3 below. City shall make every effort at all times to minimize or avoid interference with Owner's use of the Property.
2. Owner shall use its best efforts diligently to maintain all BMPs in a manner assuring peak performance at all times. All reasonable precautions shall be exercised by Owner and Owner's representative or contractor in the removal and extraction of any material(s) from the BMPs and the ultimate disposal of the material(s) in a manner consistent with all relevant laws and regulations in effect at the time. As may be requested from time to time by the City, the Owner shall provide the City with documentation identifying the material(s) removed, the quantity, and disposal destination.

3. In the event Owner, or its successors or assigns, fails to accomplish the necessary maintenance contemplated by this Agreement, within five (5) days of being given written notice by the City, the City is hereby authorized to cause any maintenance necessary to be done and charge the entire cost and expense to the Owner or Owner's successors or assigns, including administrative costs, attorneys fees and interest thereon at the maximum rate authorized by the Civil Code from the date of the notice of expense until paid in full.
4. The City may require the owner to post security in form and for a time period satisfactory to the city to guarantee the performance of the obligations state herein. Should the Owner fail to perform the obligations under the Agreement, the City may, in the case of a cash bond, act for the Owner using the proceeds from it, or in the case of a surety bond, require the sureties to perform the obligations of the Agreement. As an additional remedy, the Director may withdraw any previous Urban Runoff-related approval with respect to the property on which BMPs have been installed and/or implemented until such time as Owner repays to City its reasonable costs incurred in accordance with paragraph 3 above.
5. This agreement shall be recorded in the Office of the Recorder of Riverside County, California, at the expense of the Owner and shall constitute notice to all successors and assigns of the title to said Property of the obligation herein set forth, and also a lien in such amount as will fully reimburse the City, including interest as herein above set forth, subject to foreclosure in event of default in payment.
6. In event of legal action occasioned by any default or action of the Owner, or its successors or assigns, then the Owner and its successors or assigns agree(s) to pay all costs incurred by the City in enforcing the terms of this Agreement, including reasonable attorney's fees and costs, and that the same shall become a part of the lien against said Property.
7. It is the intent of the parties hereto that burdens and benefits herein undertaken shall constitute covenants that run with said Property and constitute a lien there against.
8. The obligations herein undertaken shall be binding upon the heirs, successors, executors, administrators and assigns of the parties hereto. The term "Owner" shall include not only the present Owner, but also its heirs, successors, executors, administrators, and assigns. Owner shall notify any successor to title of all or part of the Property about the existence of this Agreement. Owner shall provide such notice prior to such successor obtaining an interest in all or part of the Property. Owner shall provide a copy of such notice to the City at the same time such notice is provided to the successor.
9. Time is of the essence in the performance of this Agreement.
10. Any notice to a party required or called for in this Agreement shall be served in person, or by deposit in the U.S. Mail, first class postage prepaid, to the address set forth below. Notice(s) shall be deemed effective upon receipt, or seventy-two (72) hours after deposit in the U.S. Mail, whichever is earlier. A party may change a notice address only by providing written notice thereof to the other party.

IF TO CITY:

City of Coachella

IF TO OWNER:

Joe Developer

ABC Development

800 Unknown Street

Riverside, CA 92501

IN WITNESS THEREOF, the parties hereto have affixed their signatures as of the date first written above.

APPROVED AS TO FORM:

City Attorney

CITY OF

Name

Title

OWNER:

Name

Title

OWNER:

Name

Title

ATTEST:

City Clerk Date

NOTARIES ON FOLLOWING PAGE

EXHIBIT A
(Legal Description)

STAMPED
BY TEEB STENED
LS

✓ Include legal description and
plat, Exhibit A and Exhibit
B, with signatures and
attach to Maintenance
agreement for
recording.
X

EXHIBIT B
(Map/Illustration)

* see note on
page (49)

Appendix H

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT -- SUMMARY OF SITE REMEDiation CONDUCTED AND USE RESTRICTIONS

Site Assessment was not Conducted for this site.

Exhibit B

General Categories of Pollutants of Concern



General Categories of Pollutants of Concern

- **Pathogens** – Pathogens (bacteria and viruses) are ubiquitous microorganisms that thrive under certain environmental conditions. Their proliferation is typically caused by the transport of animal or human fecal wastes from the watershed. Water, containing excessive bacteria and viruses can alter the aquatic habitat and create a harmful environment for humans and aquatic life. Also, the decomposition of excess organic waste causes increased growth of undesirable organisms in the water.
- **Metals** – The primary source of metal pollution in Urban Runoff is typically commercially available metals and metal products. Metals of concern include cadmium, chromium, copper, lead, mercury, and zinc. Lead and chromium have been used as corrosion inhibitors in primer coatings and cooling tower systems. Metals are also raw material components in non-metal products such as fuels, adhesives, paints, and other coatings. At low concentrations naturally occurring in soil, metals may not be toxic. However, at higher concentrations, certain metals can be toxic to aquatic life. Humans can be impacted from contaminated groundwater resources, and bioaccumulation of metals in fish and shellfish. Environmental concerns, regarding the potential for release of metals to the environment, have already led to restricted metal usage in certain applications.
- **Nutrients** – Nutrients are inorganic substances, such as nitrogen and phosphorus. They commonly exist in the form of mineral salts that are either dissolved or suspended in water. Primary sources of nutrients in Urban Runoff are fertilizers and eroded soils. Excessive discharge of nutrients to water bodies and streams can cause excessive aquatic algae and plant growth. Such excessive production, referred to as cultural eutrophication, may lead to excessive decay of organic matter in the water body, loss of oxygen in the water, release of toxins in sediment, and the eventual death of aquatic organisms.
- **Pesticides** – Pesticides (including herbicides) are chemical compounds commonly used to control nuisance growth or prevalence of organisms. Excessive or improper application of a pesticide may result in runoff containing toxic levels of its active ingredient.
- **Organic Compounds** – Organic compounds are carbon-based. Commercially available or naturally occurring organic compounds are found in pesticides, solvents, and hydrocarbons. Organic compounds can, at certain concentrations, indirectly or directly constitute a hazard to life or health. When rinsing off objects, toxic levels of solvents and cleaning compounds can be discharged to the MS4. Dirt, grease, and grime retained in the cleaning fluid or rinse water may also adsorb levels of organic compounds that are harmful or hazardous to aquatic life.
- **Sediments** – Sediments are soils or other surficial materials eroded and then transported or deposited by the action of wind, water, ice, or gravity. Sediments can increase turbidity, clog fish gills, reduce spawning habitat, lower young aquatic organisms survival rates, smother bottom dwelling organisms, and suppress aquatic vegetation growth.
- **Trash and Debris** – Trash (such as paper, plastic, polystyrene packing foam, and aluminum materials) and biodegradable organic matter (such as leaves, grass cuttings, and food waste) are general waste products on the landscape. The presence of trash and debris may have a significant impact on the recreational value of a water body and aquatic habitat. Excess organic matter can create a high biochemical oxygen demand in a stream and thereby lower its water quality. In addition, in areas where stagnant water exists, the presence of excess organic matter can promote septic conditions resulting in the growth of undesirable organisms and the release of odorous and hazardous compounds such as hydrogen sulfide.
- **Oxygen-Demanding Substances** – This category includes biodegradable organic material as well as chemicals that react with dissolved oxygen in water to form other compounds. Proteins,

carbohydrates, and fats are examples of biodegradable organic compounds. Compounds such as ammonia and hydrogen sulfide are examples of oxygen-demanding compounds. The oxygen demand of a substance can lead to depletion of dissolved oxygen in a water body and possibly the development of septic conditions.

- **Oil and Grease** – Oil and grease are characterized as high-molecular weight organic compounds. Primary sources of oil and grease are petroleum hydrocarbon products, motor products from leaking vehicles, esters, oils, fats, waxes, and high molecular-weight fatty acids. Introduction of these pollutants to the water bodies are very possible due to the wide uses and applications of some of these products in municipal, residential, commercial, industrial, and construction areas. Elevated oil and grease content can decrease the aesthetic value of the water body, as well as the water quality.

Potential Pollutants Generated by Land Use Type

(Excerpted, with minor revision, from the San Bernardino Water Quality Management Plan dated April 14, 2004)

Type of Development (Land Use)	Sediment/ Turbidity	Nutrients	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Bacteria & Viruses	Oil & Grease	Pesticides	Metals
Detached Residential Development	P	P	N	P	P	P	P	P	N
Attached Residential Development	P	P	N	P	P ⁽¹⁾	P	P ⁽²⁾	P	N
Commercial/ Industrial Development	P ⁽¹⁾	P ⁽¹⁾	P ⁽⁵⁾	P	P ⁽¹⁾	P ⁽³⁾	P	P ⁽¹⁾	P
Automotive Repair Shops	N	N	P ^(4,5)	P	N	N	P	N	P
Restaurants	N	N	N	P	P	P	P	N	N
Hillside Development	P	P	N	P	P	P	P	P	N
Parking Lots	P ⁽¹⁾	P ⁽¹⁾	P ⁽⁴⁾	P	P ⁽¹⁾	P ⁽⁵⁾	P	P ⁽¹⁾	P
Streets, Highways & Freeways	P	P ⁽¹⁾	P ⁽⁴⁾	P	P ⁽¹⁾	P ⁽⁵⁾	P	P ⁽¹⁾	P

Abbreviations:

P = Potential N = Not potential

Notes:

- (1) A potential pollutant if landscaping or open area exists on the Project site.
- (2) A potential pollutant if the project includes uncovered parking areas.
- (3) A potential pollutant if land use involves animal waste.
- (4) Specifically, petroleum hydrocarbons.
- (5) Specifically, solvents.
- (6) Bacterial indicators are routinely detected in pavement runoff.

* PICK ALL CATEGORIES (OVERLAP CHECK)

D:\word processing\job related\414 - Riverside County Flood Control\414-117 Desert WGP 2009\Handouts\ Coachella ABC Business Park Site Plan051409.dwg 05/20/09 12:05



ABC BUSINESS PARK
F - WQMP SITE PLAN